

17

without a parachute (or with a very small parachute) though the shipping container 106 may be damaged. On the other extreme, pottery or wine glasses may require relatively low landing speeds to prevent breakage, regardless of the shipping container 106 and packing material 908.

The predetermined landing speed for a shipping container 106 can be determined based on, for example, the shock absorbing properties and strength of the shipping container 106 and packing materials 908, coupled with the strength (or fragility) of the items 904 in the shipping container 106. In some examples, the shipping container 106, packing materials 908, and shipping label parachute system 104 can be matched such that the landing speed of the shipping container 106 is lower than the predetermined landing speed for any stocked item 904 that can be shipped in that shipping container 106. In other examples, the predetermined landing speed (or maximum g-force) for each item 904 to be shipped can be determined experimentally to enable an appropriate shipping label parachute system 104, shipping container 106, and packing material 908 "system" to be determined for each item 904.

As shown in FIG. 12, in some examples, more than one shipping label parachute system 104 can be used. This can be useful for particularly heavy, large, or awkward shipping container 106. Heavy shipping container 106, for example, may simply exceed the weight limit for the largest shipping label parachute system 104; and thus, may require more than one parachute system 206 to provide safe descent. In other examples, as shown, the shipping container 106 may be a shipping tube, or similar, that would otherwise dangle or spin precariously from a single parachute system 206.

In some examples, when multiple shipping label parachute systems 104 are used, the shipping label parachute systems 104 can be placed at a predetermined distance from one another to substantially prevent the multiple parachute systems 206 from interfering with one another. In other words, the shipping label parachute systems 104 can be placed at sufficient distance from one another to prevent entanglement of the respective parachute cords 210, impingement of one canopy 208 on another, etc. In other examples, such as when a shipping container 106 is only slightly over the weight limit for a single shipping label parachute system 104, for example, interaction between the two shipping label parachute systems 104 may be inconsequential.

While several possible examples are disclosed above, examples of the present disclosure are not so limited. For instance, while a system is described primarily for use with UAVs, the system could also be used in conjunction with airplanes, helicopters, and other aerial vehicles. In addition, the location and configuration of various features of examples of the present disclosure such as, for example, the static line hook on the UAV, the type of harness used on the parachute, or the type and location of adhesives on the backing sheet can be varied according to a particular parachute system, UAV, shipping container, or by weight and/or size constraints placed in the system. Such changes are intended to be embraced within the scope of this disclosure.

The specific configurations, choice of materials, and the size and shape of various elements can be varied according to particular design specifications or constraints requiring a device, system, or method constructed according to the principles of this disclosure. Such changes are intended to be embraced within the scope of this disclosure. The presently disclosed examples, therefore, are considered in all respects to be illustrative and not restrictive. The scope of the disclosure is indicated by the appended claims, rather than

18

the foregoing description, and all changes that come within the meaning and range of equivalents thereof are intended to be embraced therein.

What is claimed is:

1. A system to deliver a package via an unmanned aerial vehicle (UAV), the system comprising:

a shipping container to house an item to be delivered; and
a shipping label parachute system coupled to the shipping container, the shipping label parachute system comprising:

a base sheet having a first side and a second side, wherein the second side is coupled to the shipping container;

a transparent breakaway cover having a first side and a second side, wherein at least a portion of the second side is coupled to the first side of the base sheet such that the base sheet and the breakaway cover form a pocket;

a parachute canopy, disposed in the pocket in a stowed position, the parachute canopy sized and shaped to slow the shipping container, during a free-fall descent, to a speed equal to, or less than, a predetermined landing speed when the shipping container is dropped from the UAV;

a plurality of parachute cords, each with a first end and a second end, the first ends of the parachute cords coupled to the parachute canopy and the second ends of the parachute cords at least partially disposed between the second side of the base sheet and the shipping container; and

a data label detachably coupled to, or printed on, the parachute canopy and visible through the first side of the breakaway cover in the stowed position, including information associated with shipping the package.

2. The system of claim 1, wherein the second side of the base sheet further comprises an adhesive to couple the shipping label parachute system to the shipping container.

3. The system of claim 1, further comprising one or more straps to couple the shipping label parachute system to the shipping container.

4. The system of claim 1, further comprising:

a static line, with a first end and a second end, the first end of the static line coupled to the parachute canopy and the second end of the static line coupleable to the UAV; wherein at least a portion of the static line protrudes through an aperture in the breakaway cover in the stowed position.

5. The system of claim 1, wherein the data label comprises one or more of an address or GPS coordinates associated with a shipping location for the package.

6. The system of claim 1, wherein the data label comprises one or more of a quick response (QR) code or a bar code.

7. A parachute shipping label comprising:

a base sheet having a first side and a second side, the first side of the base sheet coupleable to a shipping container;

a transparent breakaway cover having a first side and a second side, a portion of the first side of the breakaway cover coupled to a portion of the second side of the base sheet such that the base sheet and the breakaway cover form a pocket;

a parachute canopy, sized and shaped to be disposed in the pocket in a stowed position;

a plurality of parachute cords, each with a first end and a second end, the first ends of the parachute cords